No. 2—08—0949 Order filed January 21, 2011

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IN THE

APPELLATE COURT OF ILLINOIS

SECOND DISTRICT

THE PEOPLE OF THE STATE OF ILLINOIS,)	Appeal from the Circuit Court of Lake County.
Plaintiff-Appellee,)	
v.)	No. 01—CF—2886
GERALD SNELL,)	Honorable John T. Phillips,
Defendant-Appellant.)	Judge, Presiding.

JUSTICE ZENOFF delivered the judgment of the court. Justice Bowman and Justice Burke concurred in the judgment.

ORDER

Held: Where defendant's postconviction allegations of ineffective assistance of trial counsel for failure to request a hearing pursuant to Frye v. United States, 293 F. 1013 (D.C. Cir. 1923), to challenge the admissibility of expert testimony regarding shaken baby syndrome, ineffective assistance of appellate counsel for failure to raise the issue on direct appeal, and denial of due process as a result of the admission of shaken-baby-syndrome testimony had no arguable basis either in law or in fact, the trial court did not err in summarily dismissing defendant's postconviction petition.

Defendant, Gerald Snell, appeals the summary dismissal of his petition under the Post-Conviction Hearing Act (the Act) (725 ILCS 5/122—1 *et seq*. (West 2008)), seeking relief from his conviction of first-degree murder (720 ILCS 5/9—1(a)(2) (West 2000)). He argues that he received

ineffective assistance of trial counsel because trial counsel failed to request a hearing pursuant to *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923), to challenge the admissibility of expert testimony regarding shaken baby syndrome; he received ineffective assistance of appellate counsel because appellate counsel failed to raise the issue on direct appeal; and that admission of the testimony regarding shaken baby syndrome without a *Frye* hearing violated his due process rights. For the following reasons, we affirm.

BACKGROUND

This case arises out of the August 29, 2001, death of nine-month-old Noah Chapa. Defendant's wife, Wanda Snell, provided daycare for Noah in their home. Noah was in defendant's sole care for a period of time the day before his death. Defendant was charged with first-degree murder as a result of Noah's death. The State's theory of the case was that Noah died from shaken baby syndrome. A jury trial commenced on November 15, 2004. The evidence presented at defendant's trial is recounted at length in our disposition on direct appeal (see *People v. Snell*, No. 2—05—0171 (May 10, 2007) (unpublished order under Supreme Court Rule 23)) and is repeated in part here to the extent it is relevant to defendant's postconviction claims.

Noah's mother, Esperanza Chapa, testified that on August 28, 2001, Noah awakened at 5:30 a.m., took a bottle, and played. Noah followed Esperanza and her other son, Kyle, into the bathroom, "pulled up on the toilet, and was patting the top of the toilet seat" and "then he fell on his butt, and he went down on his left side." Esperanza "heard the garbage can slide over," and Noah cried "for a couple of minutes." Esperanza found no bumps. Esperanza and both boys left to take Kyle to preschool. Noah sat in his car seat, moved his hands, made babbling noises, and held his toy giraffe. While Esperanza was getting Kyle situated at school, Noah crawled around on the floor, acted

normally, and shared a Pop Tart with Kyle. Esperanza and Noah left Kyle's school at 6:45 a.m. and drove to the Snells' house. During the 15-minute drive, Noah acted normally. Upon arrival at the Snells' house, Esperanza gave Noah to Wanda and left for work.

At about 1:30 p.m., Wanda telephoned Esperanza at work to advise her that Noah had been asleep since noon, and she could not wake him up. Noah was making a strange noise like a moan. Wanda held the phone up to Noah so that Esperanza could listen to the noise. Esperanza said that it sounded like Noah was moaning in his sleep and that he sometimes made a humming sound when he slept. Esperanza told Wanda that Noah was probably catching up on sleep and that a 1½-hour nap was not "out of the ordinary." Esperanza explained that she took vacation time the previous week to spend time with her sons before Kyle started pre-school, and during that week, Noah did not take his normal 1½ to 2-hour nap.

At 3:40 p.m., Wanda telephoned Esperanza again and said that she still could not wake Noah and that Esperanza should come to the house. When Esperanza arrived, she found Wanda in the living room holding Noah and trying to wake him. Esperanza laid Noah on the couch and tried to wake him. Defendant came into the room and said that Noah just took a bottle and was like that the rest of the time. Esperanza noticed that one of Noah's eyes was dilated and that his body was stiff so she drove him to the emergency room at the local hospital. Noah was later air-lifted by helicopter to Children's Hospital in Milwaukee, Wisconsin. He died there the next day.

Wanda testified that defendant had worked the night shift and was in bed in the master bedroom on the morning of August 28, 2001. Esperanza brought Noah over at about 7 a.m. and Noah was pretty much his normal self, but may have been crying. Wanda put Noah and her 11-month-old son, Jalen, on the floor in the master bedroom before leaving to take her daughter to

school. Wanda came back between 8 a.m. and 9 a.m. and saw that Noah was in Jalen's crib in Jalen's room. Wanda did not approach the crib, but from the doorway observed that Noah appeared to be "sleeping fine." Shortly thereafter, Wanda left with her two boys, and defendant remained at the house. Wanda picked up her daughter from school and returned home around noon. At that time, Noah was in Jalen's crib, and it appeared that he was crying. Defendant was trying to give Noah a bottle. At 1:00 p.m. or 1:30 p.m., Wanda heard Noah making moaning sounds so she took Noah out of the crib and tried to wake him up and give him a bottle. When she was unable to wake Noah, Wanda became concerned and telephoned Esperanza. Wanda said that at some point, she asked defendant what was going on and described defendant's response as follows: "[h]e told me that [Noah] was crying, I think, and [defendant] gave him his bottle and put him in the bed. And [Noah] was crying and [defendant] took [Noah] down in our basement while [defendant] was on the computer and things like that." Defendant also told Wanda that he put Noah in Jalen's crib.

Devin Roush interviewed defendant on August 29, 2001, at the police department. Defendant's written and verbal statements were admitted into evidence. Defendant's written statement provided:

"[O]n the morning of [sic] 28th at about 9:00 a.m. my wife brought the babby's [sic] in the bedroom and set them on the floor still half asleep my son was making noise and woke me up I got up and and [sic] a little upset. I pick [N]oah up and held him by his stomch [sic] and shook him up and down maybe a little to [sic] hard then he stop crying and I put him in the crib and he went to sleep and did not wake up again [sic] sorry about lying before and I don't want to be on T.V."

Detective Navarro typed up defendant's verbal statement, which defendant reviewed and signed. The verbal statement provided:

"On Tuesday, at about 8:30 in the morning, I was sleeping in bed. My son JALEN, and BABY NOAH, were playing on the floor, and they woke me up. I work 3rd shift, and I was very tired. I was sick, and I was trying to sleep. I was a little upset, when I went over to the kids. I did not pick up my son, but I grabbed baby Noah. I grabbed him, around the stomach, with one hand. I started to shake him up and down hard. I didn't mean to hurt him, but I think I shook him a little too hard. When I was done shaking him, baby Noah went to sleep, and I laid him down in the crib, and baby never woke up. When my wife came home, I lied to her, when she asked me if something happened to the baby, because I was scared I would get in trouble. I want to say that I am very sorry for lying to the police at first, I lied again, because I was scared of getting in trouble, but I am telling the truth now, and I'm very sorry for what I did to baby Noah."

On cross-examination, Detective Navarro agreed that he and Detective Roush first suggested that Noah was shaken based on the information that they obtained from the doctors.

Jordan Greenbaum, M.D., a pathologist and Medical Director of the Child Protection Center at Children's Hospital in Milwaukee, Wisconsin, testified that shaken baby syndrome is a very specific type of physical abuse involving head trauma to "early" infants and toddlers as the result of very violent shaking. According to Dr. Greenbaum, shaken baby syndrome is accepted in the field of pediatrics and in the field of forensic pathology. Dr. Greenbaum explained that when an infant, whose head is disproportionately large in relation to its body and whose neck is small and flexible, is shaken violently back and forth, the head will whiplash forward and backward with tremendous

acceleration. This causes stress on the child's brain. Injuries indicative of violent shaking of a child include: (1) brain injury; (2) bleeding around the brain known as subdural hemorrhages; and (3) bleeding in the backs of the eyes known as retinal hemorrhages.

In evaluating a case, Dr. Greenbaum testified that she considers other matters such as the child's medical history, whether there is any disease that can mimic these symptoms, and the history of the case immediately prior to the event. Dr. Greenbaum said that it is important to develop a time line so that it can be determined who was with the child when the injury occurred. Dr. Greenbaum explained that children who suffered injuries severe enough to result in death as a result of being violently shaken will not go back to their normal behavior after being shaken. In other words, she explained, when children die from this specific type of head trauma, they become immediately symptomatic. Thus, knowing when the child was last normal indicates that the injury occurred after that time. Dr. Greenbaum testified that it was significant that Noah was in a normal baseline state all the way up to 7 a.m. on August 28, 2001. According to Dr. Greenbaum, this suggests that the injury occurred after 7 a.m. on that date. Dr. Greenbaum explained that children with brain injuries like Noah's would exhibit symptoms such as an immediate change in the level of consciousness, seizures, and limpness. She explained that often, children with such injuries will stop breathing or have irregular breathing insufficient to support them and may appear to be sleeping.

Dr. Greenbaum testified that she was called to consult and care for Noah when staff at Children's Hospital became suspicious that Noah's injuries were the result of abuse. Dr. Greenbaum interviewed Esperanza at length, examined Noah in the ICU, evaluated the CT scan taken at the local hospital and the CT scan taken four hours later, ordered an eye exam, ordered a skeletal survey, and ordered blood tests. Dr. Greenbaum also ordered other tests to rule out other "things" that might

mimic some of the findings indicative of shaken baby syndrome. When Dr. Greenbaum reviewed the CT scans with a radiologist, they saw evidence of very severe swelling of the brain and bleeding predominantly on the right side between the brain and the skull and between the right and left portions of the brain. Dr. Greenbaum explained that the subdural hemorrhage is the result of the breaking of the bridge veins between the brain and the dura beneath the skull. Dr. Greenbaum opined that these injuries were consistent with shaken baby syndrome. Dr. Greenbaum explained that when a child is violently shaken, the part of the brain that controls breathing often is damaged and the child will stop breathing. When the child stops breathing, the brain is deprived of oxygen, and the brain reacts by swelling. A tremendous amount of pressure builds as the brain gets bigger and bigger and squeezes against the skull. The heart then has trouble pumping blood to the brain, which is under pressure and the brain becomes even more oxygen deprived and swollen. Outwardly, the child becomes increasingly comatose. When Noah arrived at Children's Hospital, he was not breathing on his own, was deeply comatose, had no gag reflex, and his pupils were very sluggish to react. These were all symptoms indicative of a very severe brain injury.

Dr. Greenbaum testified that an ophthalmologist examined Noah's eyes and found extensive, widespread, bilateral retinal hemorrhages. According to Dr. Greenbaum, very few things can cause widespread retinal hemorrhages; shaken baby syndrome is the most common. Dr. Greenbaum opined that this level of bilateral retinal hemorrhages could not be caused by a minor bump on the head. Dr. Greenbaum related that birth trauma and leukemia are other possible causes, but explained that at nine months of age, Noah was too old for retinal hemorrhages to be the result of birth trauma. They tested Noah to rule out leukemia.

Dr. Greenbaum testified further that she consulted with a radiologist on Noah's case. They viewed x-rays of all the bones in the body including the skull. They did not see any skull fractures. The radiologist found evidence of what appeared to be a fracture to one thigh bone right where it comes into the knee. Dr. Greenbaum said that this fracture was highly suspicious for child abuse. When asked whether that particular injury was significant in her ultimate findings, Dr. Greenbaum said it was not significant in the ultimate diagnosis but, rather, was an additional finding. According to Dr. Greenbaum, the thigh fracture had no impact on her interpretation of the head injury and had nothing to do with the cause of Noah's death. When Dr. Greenbaum examined Noah, she did not see any bumps or bruises on any part of Noah's head to indicate that he had fallen.

In forming her opinion as to the cause of the injuries suffered by Noah, Dr. Greenbaum ruled out any major accidental trauma that might mimic shaken baby syndrome because no history supported it; she ruled out diseases that might mimic some of the findings indicative of shaken baby syndrome; and she ruled out the short fall in the bathroom that Esperanza described. Dr. Greenbaum testified that, based on the nature of his injuries, Noah would not have been crawling around on the floor, would not have been playful, and would not have eaten anything after he was injured. Dr. Greenbaum opined that Noah died of abusive head trauma or physical abuse as a result of being violently shaken.

On cross-examination, Dr. Greenbaum explained that shaken baby syndrome also is called abusive head trauma and shaken impact syndrome. She agreed that the radiologist at Children's Hospital stated in her final CT scan report that there was a possible skull fracture. Dr. Greenbaum explained that it became clear that there was no such fracture upon review of the x-ray of the skull. Dr. Greenbaum stated that she did not believe as of the date of her testimony that Noah suffered a

fracture of his left femur. Dr. Greenbaum agreed that the autopsy revealed that there was no such fracture. Dr. Greenbaum did not agree that the bleeding of the blood vessels in Noah's eyes could have been due to his brain swelling. She agreed that there were no grip marks on Noah's arms or sides but related that the absence of such marks is not unusual. Dr. Greenbaum also agreed that there is a medical basis for "delayed sudden death" of an infant following an accidental fall, but said that it is rare and presents very differently than Noah did.

Dr. Jeffrey M. Jentzen, M.D., the medical examiner for Milwaukee County, Wisconsin, performed the autopsy. He testified that, externally, Noah's body was that of a normal, healthy, well-developed child. The only external injury that Dr. Jentzen located was a small linear scratch less than one-tenth of an inch in length at the base of the attachment of the left ear. The external examination also revealed that the anterior fontanel, or soft-spot on the top of the child's head, was bulged-out, indicating excessive brain swelling or fluid on the brain.

Internally, the abdominal cavity showed no injuries, trauma, or disease. When Dr. Jentzen peeled the scalp off the skull, he found no evidence of an external injury. He did note that the suture lines between the bones of the skull were pulled apart due to excessive brain swelling. Upon opening the skull cavity, Dr. Jentzen saw a subdural hemorrhage and an accumulation of approximately 10 milliliters of blood between the dura and the undersurface of the skull. Dr. Jentzen described the injury as an inner hemispheric subdural hemorrhage highly suggestive of a rotational type injury of a non-accidental nature. Dr. Jentzen said there was something that caused the brain to move and tear the small blood vessels, called bridging veins, and deposit blood between the brain and dura. There was also subdural hemorrhaging over the convexity of the brain on both sides and in the inner hemispheric posterior area. The brain was markedly swollen and had cerebellar tonsilar

herniation. Dr. Jentzen also found a hemorrhage that encircled the optic nerves on both sides, highly suggestive of non-accidental injury.

Upon microscopic analysis of Noah's brain, Dr. Jentzen found damage to the neural fibers, called diffuse axonal injuries, that can be caused by "shearing force," which is force that results from the sudden stopping of a moving object. According to Dr. Jentzen, this type of injury is commonly seen in cases of non-accidental injury caused by shaken impact syndrome or a car accident.

Dr. Jentzen saw no apparent evidence of a fracture of the child's left femur, that is, thigh bone, during the autopsy. Dr. Jentzen explained that he removed a portion of the femur and took it to the Chief of Radiology at Children's Hospital who x-rayed that portion of the femur and rendered an opinion that there was a healing fracture in that area. Dr. Jentzen included that finding in his autopsy report. Subsequently, in 2002, the Chief of Radiology looked at the x-ray again and concluded that the suspicious area on the x-ray was a variant and did not represent a fracture.

Dr. Jentzen testified further that he examined Noah's eyes with an ophthalmologist and they found diffuse hemorrhages in both eyes as well as a hemorrhage around the optic nerve. Dr. Jentzen said these severe bilateral retinal hemorrhages were consistent with an acceleration/deceleration shearing-type of injury. Dr. Jentzen explained that 80 percent of the children who are violently shaken have bilateral retinal hemorrhages. Other causes of this injury are birth trauma and vehicular accidents, but Noah's case was not consistent with either of those causes. Rather, Dr. Jentzen opined that the severe bilateral retinal hemorrhages in Noah's eyes were consistent with the constellation of findings that accompany shaken impact syndrome. Dr. Jentzen explained that the constellation of findings that primarily accompany shaken impact syndrome are brain swelling, subdural or arachnoid hemorrhage, and retinal hemorrhage. Noah had all three. Dr. Jentzen opined that the cause of

Noah's death was brain injury related to shaken impact syndrome. He explained that the injury pattern demonstrated the absence of outside trauma or a single impact injury and that no injuries Noah suffered were consistent with a fall from a major height.

On cross-examination, Dr. Jentzen agreed that Noah's death summary included a finding that there was a possible right temporal skull fracture, a right subscapular kidney hematoma, and a corner fracture of the distal left femur. Dr. Jentzen also agreed that Dr. Greenbaum indicated in her consultation that "[t]he corner fracture involving the left femur is extremely suspicious for inflicted trauma given the type of fracture and its presence in an otherwise healthy, young infant." Dr. Jentzen agreed further that he found no such injuries during the autopsy. Dr. Jentzen stated that he found nothing remarkable about Noah's neck, chest, or abdomen, and that he found no rib fractures. Dr. Jentzen explained that there are virtually no other circumstances that would mimic the constellation of injuries Noah exhibited other than shaken impact syndrome or a high speed automobile accident.

Defense counsel referred Dr. Jentzen to a photograph of the left side of Noah's head with his skin peeled back from his skull. When asked if a spot on the skull or a patch of redness around that spot were evidence of trauma, Dr. Jentzen said that they were not. Defense counsel also directed Dr. Jentzen's attention to a photograph showing a top view of Noah's exposed skull and asked him if a spot just above where two suture lines met was evidence of trauma, and Dr. Jentzen said that it was not. When asked if a spot in the lower right quadrant of the same photograph was evidence of trauma, Dr. Jentzen said that it was not. Dr. Jentzen agreed that the neuropathological diagnosis in his autopsy report states "blunt force trauma" and "diffuse brain swelling with bilateral tonsilar herniation," and reflects nothing about shaken impact syndrome.

On redirect examination, Dr. Jentzen explained that "blunt force trauma" implies that some type of mechanism—blunt trauma or another type of mechanism—caused the tearing of the blood vessels and the brain movement. He said that the term could include impact or violent acceleration and deceleration movement that caused a tearing of the blood vessels. According to Dr. Jentzen, "[i]mpact" means "a massive slamming of a child or a violent shaking of some type to cause enough motion of the brain to cause the damage that was described. It would not be consistent with a trivial fall or what we typically see. It would be an intentional type injury." When asked what effect the presence or absence of the fracture of the child's leg had on his determination of cause of death, Dr. Jentzen said, "[t]he only impact it would have is as to the mechanism. If this would have been a recent fracture I would have hypothesized that the child would have been flung by his leg. But there not being a fracture there I would have discounted that."

The defense called forensic pathologist, Dr. John Plunkett, M.D., who testified that he was asked to review materials in connection with the instant case, including Noah's medical records, the medical examiner's report, the autopsy photographs, microscopic slides, police reports, and Noah's newborn records. Dr. Plunkett testified that shaking a nine-month-old infant at velocities attainable by humans has no effect on the infant's brain. Dr. Plunkett explained that people have been able to achieve back-and-forth shaking velocities of 3 or 4 times per second, and that rate will cause major structural neck damage. Dr. Plunkett said that there was no evidence of such damage to Noah's neck. Based on studies performed on monkeys and other experimental animals, Dr. Plunkett contended that it requires levels of acceleration at least 10 times faster than humanly achievable to cause the brain to move within the skull during shaking. At velocities lower than that, the brain is static, that is, it

moves at the same rate as the skull. Dr. Plunkett opined that the cause of Noah's death was not shaking.

Dr. Plunkett testified further that shaking is different than blunt force trauma. Shaking causes a whiplash type of movement while blunt force trauma is the result of a collision of two solid objects. Thus, Dr. Plunkett explained that a diagnosis of blunt force trauma is different from a diagnosis of shaken impact syndrome. A blunt force trauma diagnosis is consistent with a fall causing the head to strike a hard object. Dr. Plunkett said that the 10 "ccs" of clotted blood (about 2 teaspoons) diffuse around Noah's brain was not a significant amount of subdural bleeding. Dr. Plunkett explained that if there had been a tearing of Noah's bridge veins, one would have expected more clotted blood around the dura. According to Dr. Plunkett, the 10 "ccs" of blood could have been due to a direct rupture of the bridging veins coincident to impact, a secondary lack of oxygen, or a natural disease process.

Dr. Plunkett indicated that the photograph of the left side of Noah's scalp showed an impact injury on the side of Noah's scalp a few inches above the left ear and perhaps one inch wide. Dr. Plunkett opined that the cause of Noah's death was an impact injury to Noah's head. Dr. Plunkett explained that:

"[Noah's] head was stationary and was hit with an object, like a baseball, or his head was in motion and stopped suddenly against a non-yielding surface such as the floor that caused his skull to in-bend, move inward without fracturing, and cause the brain to distort or move as a mass structure, not shearing, but rather mass movement of the brain towards the base of the brain, the area called the foramen manna.

That causes structural damage to the brain itself, which lead [sic] to brain swelling, cerebral edema, and the cerebral edema was the ultimate cause of Noah's death."

Dr. Plunkett said that a child who suffered this type of impact injury would not be immediately symptomatic.

Dr. Plunkett disagreed with Dr. Jentzen's conclusion that Noah suffered diffuse axonal injury due to trauma. Dr. Plunkett opined that Noah's axon injury was due to lack of oxygen and not external trauma or shaking. Dr. Plunkett explained that when nerve fibers do not get sufficient amounts of oxygen, the fibers die and start to spread apart and fall off, forming little balls. Dr. Plunkett looked at the stains of Noah's brain tissue that were prepared by Dr. Jentzen and determined that Noah's injury, in terms of axon damage, was due to lack of oxygen, not external trauma.

Dr. Plunkett testified further that Noah's brain would have swelled gradually. When asked to state his opinion to a reasonable degree of medical certainty as to the cause of Noah's death, Dr. Plunkett said:

"Noah had an impact injury to his head. The impact, at some time after it occurred, and I can't tell you when after it occurred, caused him to have seizures and caused him to be unarousable or unwakeable.

He was brought into the hospital at that point, had well-developed brain swelling, which was irreversible.

They treated it appropriately at Lake County, and in Milwaukee Children's, were not able to reverse it, and Noah died."

When asked whether Noah's death had anything to do with being shaken, Dr. Plunkett said no and explained:

"Noah doesn't have a mark or an injury on him any place, no bruises, no rib fractures, no soft tissue injuries, no long bone fractures, no skull fractures, no facial abrasions or lacerations.

The only injury that he has is only identifiable after he dies and you look at the scalp, and he has a small contusion or bruise on the left side of his scalp above his left ear, that is an impact.

Any impact in an infant may be associated with significant brain damage, doesn't happen very often, or none of us wouldn't [sic] be here, but it may happen.

And there is no evidence in Noah's case that it happened in any way other than that."

On cross-examination, Dr. Plunkett explained that except under very unusual mechanical circumstances, a child under the age of 12 does not get a shearing brain injury. Dr. Plunkett also testified that retinal hemorrhaging is irrelevant to the diagnosis. Dr. Plunkett indicated that as a child's age gets "closer to the age of zero," impact injuries are more likely to be associated with diffuse subdural hematoma rather than focal. Dr. Plunkett also reiterated his opinion that you cannot shake a child and cause the injuries associated with shaken baby syndrome. Dr. Plunkett clarified that the studies to which he referred used adult monkeys or baboons and a single acceleration mechanism. Dr. Plunkett conceded that medical schools teach that the injuries suffered by Noah are likely caused by a violent shaking of the child. Dr. Plunkett said that he disagreed with that teaching. Dr. Plunkett conceded that there is a significant body in peer review literature that indicates that shaken baby syndrome victims do not necessarily have external injuries or neck injuries, but said that he disagreed.

During the State's rebuttal case, Dr. Greenbaum testified that an inter-hemispheric subdural hematoma over the convexity of the brain, bilateral diffuse retinal hemorrhaging, and massive brain swelling are not consistent with a short fall injury.

The jury found defendant guilty of first-degree murder (720 ILCS 5/9— 1(a)(2) (West 2000)). The trial court sentenced defendant to 26 years' imprisonment. Defendant filed a motion for a judgment of acquittal or a new trial. He argued, *inter alia*, that the expert testimony regarding shaken baby syndrome did not meet the *Frye* standard for admissibility. Following a hearing, the trial court denied the motion. The trial court noted that the "defense fully litigated that issue in front of the jury whether or not there could be an injury from shaken baby. The jury did not believe the defense's expert in that they found the defendant guilty."

On direct appeal, defendant argued that (1) the evidence was insufficient to sustain his conviction; (2) the trial court erred in denying a motion to suppress his statements; (3) he was deprived of a fair trial because of the trial court's refusal to rescind the discovery sanction of barring Jan E. Leetsma, M.D., as a defense rebuttal witness due to defense counsel's late disclosure of the witness; (4) he was denied a fair trial when the trial court limited defense counsel's remarks during opening statement; (5) the prosecutor's improper impeachment techniques denied him a fair trial; (6) the prosecutor's improper comments during closing argument denied him a fair trial; and (7) he was denied a fair trial as a result of cumulative error. We affirmed defendant's conviction. See *People v. Snell*, No. 2—05—0171 (May 10, 2007) (unpublished order under Supreme Court Rule 23).

On June 25, 2008, defendant, through *pro bono* counsel, filed a postconviction petition under the Act. He alleged that he received ineffective assistance of trial counsel because trial counsel failed to file a pretrial Frye motion to challenge the admissibility of medical testimony regarding shaken baby syndrome; he received ineffective assistance of appellate counsel because appellate counsel failed to raise the issue on direct appeal; and his continued incarceration violates his due process rights because his conviction was based on "junk science." Defendant alleged that, beginning in 1999, several studies emerged that challenged the validity of the shaken-baby-syndrome diagnosis. In particular, defendant alleged, the studies revealed that falls of short distances may lead to significant brain injuries such as cerebral edema, subdural hemorrhaging, and retinal hemorrhaging—symptoms that previously had been considered indicative of shaken baby syndrome; lucid intervals may in fact exist between trauma that causes brain injury and the appearance of behavioral symptoms; retinal hemorrhaging cannot be scientifically attributed to shaking; and, due to the force necessary to elicit brain injuries by shaking, the brain injuries cannot occur without a corresponding neck injury—a finding often absent in shaken-baby-syndrome cases. We note that defendant's postconviction petition states that "[r]elevant articles are contained in an Appendix to this PostConviction Petition." However, the record does not contain this appendix.

Defendant attached affidavits (submitted to the court in *State v. Edmunds*, 746 N.W.2d 590 (Wis. Ct. App. 2008)) by "several former proponents of [shaken baby syndrome] * * * attesting to the fact that the diagnosis is no longer valid." Defendant alleged further that since his trial in 2004, "the reliability and validity of [shaken baby syndrome] has been successfully challenged in a number

¹The trial court granted defendant's July 31, 2008, motion for leave to amend and supplement the postconviction petition to include signed versions of the supporting affidavits.

of state courts based on emerging scientific evidence and the continuing controversy surrounding the diagnosis." In support, he cited and attached two out-of-state trial court orders that precluded expert testimony regarding shaken baby syndrome: *State v. Hyatt*, No. 06M7-CR00016-02 (Mo. Cir. Ct. Nov. 6, 2007), and *Commonwealth v. Davis*, No. 04-CR-205 (Ky. Cir. Ct. Apr. 17, 2006). Defendant further attached an affidavit from his trial counsel, in which counsel attested that his decision to challenge the admissibility of expert testimony regarding shaken baby syndrome in a posttrial motion was *not* trial strategy. Rather, it was an attempt to correct his mistake in not raising the issue prior to trial.

The trial court summarily dismissed defendant's postconviction petition. The trial court determined that, had trial counsel sought a pretrial *Frye* hearing, the request properly would have been denied. Defendant, therefore, could not establish prejudice, and his ineffective assistance of counsel and due process claims consequently failed.

The trial court reasoned that the proper focus of the *Frye* "general acceptance" test is on the underlying methodology used to develop the expert witness's conclusion, not the expert's ultimate conclusion. The trial court noted that defendant's claim that shaken-baby-syndrome evidence was inadmissible was an attack on Dr. Greenbaum's and Dr. Jentzen's conclusions rather than the methodology underlying their analysis. The trial court concluded that Drs. Greenbaum and Jentzen based their opinion testimony on familiar and well-established medical procedures, tests, and examinations—the same procedures, tests, and examinations upon which defendant's expert witness, Dr. Plunkett, relied. The trial court stated: "Nothing in this case suggests that any disagreement existed between the State and defense experts regarding the underlying methodologies in this case;

the medical science upon which all experts based their opinions is obviously generally accepted amongst them. Instead, it is only the doctors' conclusions that are the basis for their disagreement."

With respect to defendant's argument that his continued incarceration violated his due process rights, the trial court noted that defendant forfeited the argument because he "cites absolutely no legal authority for this proposition, which essentially restates his earlier theory" and "sets forth his claim in one sentence." The trial court held that, even if the claim were not forfeited, the due process argument fails for the same reasons the ineffective-assistance-of-counsel claims fail. Accordingly, the trial court held that defendant's postconviction petition was frivolous and patently without merit. Defendant timely appealed.

ANALYSIS

Defendant argues that he was denied the effective assistance of trial and appellate counsel because trial counsel failed to request a *Frye* hearing to challenge the admission of shaken-baby-syndrome evidence and appellate counsel failed to raise the issue on direct appeal. Defendant's theory is that had trial counsel moved for a *Frye* hearing, the trial court would have been required to conduct a *Frye* hearing; the trial court would have been required to bar the evidence from trial after conducting the *Frye* hearing; and absent the barred evidence, defendant would not have been convicted. Defendant also contends he was denied his right to due process when shaken-baby-syndrome evidence was admitted at his trial without a *Frye* hearing. We disagree.

The Act provides a method by which persons under criminal sentence may assert that their convictions were the result of a substantial denial of their rights under the United States or Illinois Constitution or both. *People v. Petrenko*, 237 Ill. 2d 490, 495-96 (2010). In noncapital cases, the Act contemplates three distinct stages. *People v. Barkes*, 399 Ill. App. 3d 980, 985 (2010). At the

first stage, the trial court must within 90 days examine the petition independently and summarily dismiss it if it is frivolous or patently without merit. *Barkes*, 399 III. App. 3d at 985; 725 ILCS 5/122—2.1(a)(2) (West 2008). A petition is frivolous or patently without merit if it "has no arguable basis either in law or in fact." *People v. Hodges*, 234 III. 2d 1, 16 (2009). A petition has no arguable basis in law or in fact when it is based on an "indisputably meritless legal theory" or a "fanciful factual allegation." *Hodges*, 234 III. 2d at 16.

If the petition is not summarily dismissed, it proceeds to the second stage where the court appoints counsel to an indigent defendant who so desires; the petition may be amended; and the State may move to dismiss or answer the petition. *Barkes*, 399 Ill. App. 3d at 985-86; 725 ILCS 5/122—4, 122—5 (West 2008). At the second stage, if the court determines that the petition makes a substantial showing of a constitutional violation, the petition proceeds to the third stage for an evidentiary hearing. *Barkes*, 399 Ill. App. 3d at 986; 725 ILCS 5/122—6 (West 2008). A defendant "is not entitled to an evidentiary hearing as a matter of right; rather, to require an evidentiary hearing, the allegations in the petition must be supported by the record or by accompanying affidavits." *Barkes*, 399 Ill. App. 3d at 986. The court is not to engage in fact finding at the second stage, but must accept all well-pleaded facts as true unless rebutted by the record. *People v. Jones*, 358 Ill. App. 3d 379, 384 (2005). However, "[n]onspecific and nonfactual assertions that merely amount to conclusions are not sufficient to require a hearing under the Act." *Barkes*, 399 Ill. App. 3d at 986. Our review of the trial court's dismissal of defendant's postconviction petition is *de novo*. *Hodges*, 234 Ill. 2d at 9.

Defendant's ineffective assistance of trial and appellate counsel claims are subject to the two-prong test set forth in *Strickland v. Washington*, 466 U.S. 668 (1984). To succeed on a claim

of ineffective assistance of counsel, a defendant must show both that counsel's performance fell below an objective standard of reasonableness and that the deficient performance prejudiced the defendant in that, but for counsel's deficient performance, there is a reasonable probability that the result of the proceeding would have been different. *Strickland*, 466 U.S. at 687-88, 694; *People v. Houston*, 226 Ill. 2d 135, 144 (2007). A reasonable probability that the result of the proceeding would have been different is a probability sufficient to undermine confidence in the outcome. *Strickland*, 466 U.S. at 694; *Houston*, 226 Ill. 2d at 144. Failure to satisfy one prong defeats the claim. *Strickland*, 466 U.S. at 697; *Houston*, 226 Ill. 2d at 144-45.

Defendant's argument that expert testimony regarding shaken baby syndrome should have been subjected to a *Frye* hearing lacks merit, and defendant, therefore, cannot establish prejudice as a result of trial counsel's failure to request a *Frye* hearing and appellate counsel's failure to raise the issue on appeal. In Illinois, the admission of expert testimony is governed by the "general acceptance" test first expressed in *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923). *Donaldson v. Central Illinois Public Service Co.*, 199 Ill. 2d 63, 76-77 (2002), *overruled on other grounds, In re Commitment of Simons*, 213 Ill. 2d 523 (2004); *Northern Trust Co. v. Burandt and Armbrust, LLP*, 403 Ill. App. 3d 260, 275 (2010). The *Frye* test dictates that scientific evidence is admissible at trial if the methodology or scientific principle upon which the opinion is based is "sufficiently established to have gained general acceptance in the particular field in which it belongs." *Donaldson*, 199 Ill. 2d at 77, quoting *Frye*, 293 F. at 1014. The *Frye* test is intended to "exclude methods new to science that undeservedly create a perception of certainty when the basis for the evidence or opinion is actually invalid." *Donaldson*, 199 Ill. 2d at 78. A court may determine that the methodology or scientific principle meets the general acceptance test based on the results of a

Frye hearing or by taking judicial notice of unequivocal and undisputed prior judicial decisions or technical writings on the subject. *People v. McKown*, 226 Ill. 2d 245, 254 (2007).

Importantly, "'general acceptance' does not concern the ultimate conclusion. Rather, the proper focus of the general acceptance test is on the underlying methodology used to generate the conclusion. If the underlying method used to generate an expert's opinion is reasonably relied upon by the experts in the field, the fact finder may consider the opinion—despite the novelty of the conclusion rendered by the expert." *Donaldson*, 199 Ill. 2d at 77.

Drs. Greenbaum and Jentzen testified to their *conclusion* that Noah died from shaken baby syndrome. They based the conclusion on their review of Noah's medical records and testing, including x-rays, CT scans, eye examinations, and blood tests. None of the underlying methodology on which their conclusion was based was novel, and defendant does not claim as much. Indeed, defendant's expert witness, Dr. Plunkett, relied on the very same methodology. Defendant challenges Dr. Greenbaum's and Dr. Jentzen's conclusion that Noah died from shaken baby syndrome. He does not challenge the underlying methodology. Accordingly, *Frye* was not implicated. *Cf. Herlihy v. State*, 927 So. 2d 146, 148 (Fla. Dist. Ct. App. 2006) (*per curiam*) (affirming trial court's summary dismissal of postconviction "motion" alleging ineffective assistance of counsel for failing to request a *Frye* hearing to challenge the admission of shaken-baby-syndrome evidence because a "diagnosis based on an expert's opinion and experience, versus a specific scientific test, would not be subject to a *Frye* hearing"); *Commonwealth v. Passarelli*, 789 A.2d 708, 715-16 (Pa. Super. Ct. 2001) (rejecting the defendant's claim that the trial court should have held a *Frye* hearing regarding the admissibility of shaken impact syndrome because the physician's

diagnosis of shaken impact syndrome was opinion testimony, not scientific evidence within the meaning of Frye).

Defendant contends, without citation to authority or any analysis, that the routine nature of the underlying tests is not dispositive because "the scientific principle or theory [shaken baby syndrome] that relies on those tests leads to a scientifically invalid conclusion." Defendant's argument ignores that the focus of the general acceptance test is on the underlying methodology used to generate the conclusion, not the conclusion. *Donaldson*, 199 Ill. 2d at 77. The *conclusion* at issue here is the diagnosis that Noah died from shaken baby syndrome. The State's expert witnesses concluded, based on well-recognized methodology, that Noah died from shaken baby syndrome. "If the underlying method used to generate an expert's opinion is reasonably relied upon by the experts in the field, the fact finder may consider the opinion—despite the novelty of the conclusion rendered by the expert." *Donaldson*, 199 Ill. 2d at 77.

Even if defendant's argument were construed as a proper *Frye* challenge, shaken baby syndrome is not a new or novel scientific principle. The *Frye* test must be applied only if the scientific principle, technique, or test offered by the expert is new or novel. *Donaldson*, 199 Ill. 2d at 78-79; *People v. Cumbee*, 366 Ill. App. 3d 476, 492 (2006). A scientific principle, technique, or test is new or novel if it is "'original or striking' or does 'not resembl[e] something formerly known or used.'" *Donaldson*, 199 Ill. 2d at 79, quoting Webster's Third New International Dictionary 1546 (1993). "Once a principle, technique, or test has gained general acceptance in the particular scientific community, its general acceptance is presumed in subsequent litigation; the principle, technique, or test is established as a matter of law." *Donaldson*, 199 Ill. 2d at 79.

A review of Illinois case law demonstrates that shaken baby syndrome is not a new or novel principle. Appellate courts have rejected sufficiency-of-the-evidence challenges in several cases in which shaken-baby-syndrome testimony was admitted. See, e.g., People v. Coleman, 311 III. App. 3d 467, 470, 476 (2000); People v. Rader, 272 III. App. 3d 796, 799, 804-05 (1995); People v. Renteria, 232 Ill. App. 3d 409, 412, 416-17 (1992). Notably, in People v. Armstrong, 395 Ill. App. 3d 606 (2009), the defendant challenged the trial court's refusal to conduct a *Frye* hearing before admitting expert testimony regarding shaken baby syndrome. The trial court concluded that a Frye hearing was not required because the diagnosis is generally accepted in the medical and legal communities, and Illinois courts have applied it universally. Armstrong, 395 Ill. App. 3d at 617. The appellate court did not address defendant's argument that the trial court erroneously took judicial notice of the diagnosis in light of the court's determination that defendant's conviction did not hinge on the admission of shaken-baby-syndrome evidence. Armstrong, 395 III. App. 3d at 627-28. Nevertheless, the decision reflects another case in which the trial court admitted shaken-babysyndrome evidence. See also *People v. Jacobazzi*, 398 Ill. App. 3d 890, 893, 929 (2010) (remanding for further evidentiary hearing on the defendant's postconviction allegation of ineffective assistance of trial counsel for failure to present evidence that the victim's injuries resulted from a preexisting injury rather than shaken baby syndrome).

Defendant contends that shaken baby syndrome is a novel scientific diagnosis despite the fact that it has been introduced as evidence in court for many years because "[n]o Illinois reviewing court has ever determined that [s]haken [b]aby [s]yndrome satisfies *Frye*." In support, defendant cites *People v. McKown*, 226 Ill. 2d 245 (2007). In *McKown*, our supreme court held that the methodology of horizontal gaze nystagmus (HGN) evidence as an indicator of alcohol impairment

was novel despite its long-established use by police officers. *McKown*, 226 Ill. 2d at 257-258. The court reasoned that "the general acceptance of HGN testing has been repeatedly challenged in courts across the nation, and the issue remains unsettled." *McKown*, 226 Ill. 2d at 257. "[O]ur own appellate court has issued divergent opinions on the topic * * * *." *McKown*, 226 Ill. 2d at 257. The court concluded that the methodology of HGN is novel for *Frye* purposes "[g]iven the history of legal challenges to the admissibility of HGN test evidence, and the fact that a *Frye* hearing has never been held in Illinois on this matter." *McKown*, 226 Ill. 2d at 258.

We acknowledge defendant's argument that no Illinois *reviewing* court has ever determined that shaken baby syndrome satisfies *Frye*. Nevertheless, unlike *McKown*, where Illinois courts and courts across the country had issued divergent decisions on the general acceptance of HGN testing, the shaken-baby-syndrome jurisprudence does not reflect the same discord. Indeed, defendant does not cite, and our research has not revealed, any Illinois decisions that hold that shaken-baby-syndrome evidence is not generally accepted. See *Armstrong*, 395 Ill. App. 3d at 627 (noting that the defendant failed to cite any conflicting Illinois decision on the admissibility of shaken baby syndrome).

Defendant cited only three cases that support his proposition that the reliability of shaken baby syndrome has been successfully challenged: one out-of-state appellate court decision and two out-of-state trial court orders. See *Edmunds*, 746 N.W.2d at 598-99; *State v. Hyatt*, No. 06M7-CR00016-02 (Mo. Cir. Ct. Nov. 6, 2007); and *Commonwealth v. Davis*, No. 04-CR-205 (Ky. Cir. Ct. Apr. 17, 2006). The defendant in *Edmunds* was convicted in 1996 of first-degree reckless homicide for the death of a seven-month-old child in her care. The State presented expert testimony that the child died from shaken baby syndrome. *Edmunds*, 746 N.W.2d at 592-93. The defendant

filed a motion for a new trial in 2006 on the basis of newly discovered evidence, *i.e.*, expert medical testimony challenging the validity of shaken baby syndrome. *Edmunds*, 746 N.W.2d at 593. The Wisconsin Court of Appeals reversed the trial court's denial of the motion on grounds that a shift in mainstream medical opinion regarding shaken baby syndrome established a reasonable probability that a different result would be reached in a new trial. *Edmunds*, 746 N.W.2d at 598-99.

Edmunds is distinguishable. There, no competing medical opinions as to how the victim's injuries arose were introduced at the defendant's trial. Edmunds, 746 N.W.2d at 599. Indeed, the defendant "presented one medical expert witness who agreed with the State's witnesses that [the victim] was violently shaken before her death but who opined that the injury occurred before [the victim] was brought to [the defendant's] home." Edmunds, 746 N.W.2d at 592. At the time of the defendant's 1996, trial, the debate in the medical community regarding the validity of shaken baby syndrome had not yet emerged. Edmunds, 746 N.W.2d at 599.

In contrast, here, according to defendant's own allegations, "[b]eginning in 1999, numerous studies and literature reviews challenging the reliability and validity of [shaken baby syndrome] emerged." Defendant was not tried until 2004. To be sure, Dr. Plunkett testified for the defense regarding the very criticisms of shaken baby syndrome that defendant raises now. Dr. Plunkett opined that Noah died from brain swelling that resulted from an impact injury to his head, not shaken baby syndrome. Moreover, *Edmunds* involved a newly-discovered-evidence claim, not a *Frye* claim. *Edmunds*, 746 N.W.2d at 593. We note that defendant does not raise newly discovered evidence as a basis for relief, yet he argues in his reply brief that "[f]or all anyone knows, if this petition had proceeded past the first stage and counsel had been appointed to file an amended petition, counsel

might have amended the petition to include a claim of actual innocence based on newly discovered evidence." We express no opinion on the merits of such a claim because it was not in fact raised.

The two trial court orders upon which defendant relied for his argument that the reliability of shaken baby syndrome evidence has been successfully challenged precluded testimony regarding shaken baby syndrome following *Frye* and *Daubert*² hearings, respectively. *State v. Hyatt*, No. 06M7-CR00016-02 (Mo. Cir. Ct. Nov. 6, 2007), and *Commonwealth v. Davis*, No. 04-CR-205 (Ky. Cir. Ct. Apr. 17, 2006). However, the trial court's order in *Davis* was reversed on appeal on grounds that criticism of the testimony went to the weight of the evidence, not its admissibility. *Commonwealth v. Martin (and Davis)*, 290 S.W.3d 59, 68-69 (Ky. Ct. App. 2008)).

In contrast to the paucity of authority to support defendant's argument, courts across the country widely have recognized the admissibility of shaken-baby-syndrome evidence. See, *e.g.*, *State v. Leibhart*, 662 N.W.2d 618, 628 (Neb. 2003) ("We also note that for some time, courts in other states have found shaken baby syndrome to be a generally accepted diagnosis in the medical community"); *State v. Lopez*, 412 S.E.2d 390, 393 (S.C. 1991) (testimony regarding shaken baby syndrome is admissible when given by a properly qualified expert); *State v. McClary*, 541 A.2d 96,

²Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993). Unlike the Frye general acceptance test, the Daubert test for admissibility of expert opinion provides general observations to consider in determining whether a standard of evidentiary reliability has been reached that would assist the trier of fact in understanding the fact at issue. See Donnellan v. First Student, Inc., 383 Ill. App. 3d 1040, 1057-58 (2008) (discussing distinction between Frye and Daubert tests). We note that Illinois Rule of Evidence 702 (eff. Jan. 1, 2011) retains the Frye test.

102 (Conn. 1988) (shaken baby syndrome is a generally accepted diagnosis in the medical field); *Johnson v. State*, 933 So. 2d 568, 570 (Fla. Dist. Ct. App. 2006) ("Because Shaken Baby Syndrome testimony has been admitted in Florida and other jurisdictions, Shaken Baby Syndrome testimony is no longer a new or novel scientific principle subject to a *Frye* analysis"); *People v. Yates*, 736 N.Y.S.2d 798, 801 (N.Y. App. Div. 2002) ("Since shaken baby syndrome is no longer a novel scientific theory * * *, no *Frye* hearing was required * * * *"); see also Deborah Tuerkheimer, *The Next Innocence Project: Shaken Baby Syndrome and the Criminal Courts*, 87 WASH. U. L. REV. 1, 32 (2009) ("Defense motions to exclude expert testimony regarding [shaken baby syndrome] have, almost without exception, proven unsuccessful"). Against this backdrop, we hold that shaken baby syndrome is not a new or novel scientific principle subject to a *Frye* hearing.

As a final matter, defendant's reliance on recent studies that challenge the validity of the shaken-baby-syndrome diagnosis is misplaced. Our supreme court has made clear: "General acceptance" does not mean universal acceptance, and it does not require that the methodology in question be accepted by unanimity, consensus, or even a majority of experts. *Donaldson*, 199 Ill. 2d at 78. Rather, evidence meets the *Frye* standard if the underlying method used to generate an expert's opinion is reasonably relied upon by experts in the relevant field. *Donaldson*, 199 Ill. 2d at 77.

Accordingly, a *Frye* hearing was not warranted in this case, and defendant suffered no prejudice from trial counsel's failure to request a *Frye* hearing and appellate counsel's failure to raise the issue on direct appeal. In light of our disposition, we need not address the State's argument that, even if the trial court should have held a *Frye* hearing, the "new application of the *Frye* test" would

constitute application of a new constitutional rule of criminal procedure that cannot be applied retroactively on collateral review under *Teague v. Lane*, 489 U.S. 288 (1989) (plurality).

Defendant also contends that his conviction based on "junk science" denied him due process of law. He likens his case to *Snowden v. Singletary*, 135 F.3d 732, 737-39 (11th Cir. 1998). There, the State's expert witness testified in the defendant's child sexual abuse trial that 99.5% of children tell the truth and that he had never encountered a child who lied about abuse. *Snowden*, 135 F.3d at 737. The Ninth Circuit Court of Appeals granted the defendant *habeas* relief, holding that the evidentiary error amounted to a due process violation by making the defendant's trial fundamentally unfair. *Snowden*, 135 F.3d at 739. A denial of fundamental fairness occurs when improperly admitted evidence is material in the sense of a crucial, critical, highly significant factor. *Snowden*, 135 F.3d at 737. The critical issue in the case was the children's credibility, and the expert's testimony invaded the sole province of the jury to determine witness credibility. *Snowden*, 135 F.3d at 739.

Snowden involved improperly admitted evidence. In contrast, here, for the reasons discussed, the State's expert witness testimony that Noah died from shaken baby syndrome was admissible. Admission of the evidence does not amount to a due process violation. Defendant's postconviction petition had no basis in law or fact. Accordingly, summary dismissal of defendant's postconviction petition was proper.

For the foregoing reasons, we affirm the judgment of the circuit court of Lake County.

Affirmed.